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NOTES ON GEOGRAPHIC DISTRIBUTION

Reptilia, Serpentes, Dipsadidae, *Gomesophis brasiliensis* (Gomes, 1918): Distribution extension in state of Santa Catarina, Brazil

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ABSTRACT: The Brazilian burrowing snake, *Gomesophis brasiliensis*, occurs in aquatic habitats such as swamps, from Minas Gerais and Distrito Federal until Rio Grande do Sul. In spite of this wide distribution, the species' geographic range still remains unclear. This note reports the occurrence of *G. brasiliensis* in the municipality of Vargem Bonita, state of Santa Catarina, south Brazil, extending the species' range *ca.* 80 km to the west in this state.

The *Gomesophis* genus, which belongs to the Tachymenini tribe, comprises only one species, the Brazilian burrowing snake *G. brasiliensis* (Gomes, 1918). This species is associated to aquatic habitats and it is frequently found burrowed in the mud (Prudente and Brandão 1998; Lema 2002; França and Araújo 2007). Its diet includes earthworms, which is a derived character to the group (Oliveira *et al.* 2003). Specimens analyzed by Oliveira *et al.* (2003) revealed a seasonal reproduction, associated to the rainy season.

In spite of a wide distribution, just few records exist for this species and its geographic range remains unclear. *G. brasiliensis* type locality is Pindamonhangaba, state of São Paulo, Brazil (Gomes 1918). According to Peters and Orejas-Miranda (1970) this species occurs in the states of Minas Gerais, São Paulo, Paraná and Rio Grande do Sul. It has also been recorded in Central Brazil, in Águas Emendadas Ecological Station, Distrito Federal (Prudente and Brandão 1998). In state of Santa Catarina *G. brasiliensis* was known from only one locality until recently, Alto Vale do Itajaí (municipality of Rio do Campo; R. S. Bérnils, pers. comm.) (Bérnils *et al.* 2001), however, Ghizoni Jr. *et al.* (2009) recorded the species' occurrence in four additional municipalities (Caçador, Fraiburgo, Canoinhas, and Porto União).

We observed two specimens in a private property named Fazenda São Pedro (26°53'48" S, 51°42'05" W; 655 m above sea level) on October 18th 2008. The area belongs to Seara Alimentos Company and is located in the municipality of Vargem Bonita, west of state of Santa Catarina, Brazil. The closest municipality where the species' occurrence is documented (Caçador) is about 80 km far from there. Timber extraction (planted trees) is the main activity in the area nowadays, but the Ombrophylous Mixed Forest (Brazilian pine forest) covered it originally. Individuals were found active, around 21:00 h, moving in the water surface, distant about 1.5 m between them. Just one individual could be captured, which was deposited in the herpetological collection of the Universidade Comunitária Regional de Chapecó (CSUC 0125; CRA = 270 mm; CC = 52 mm; 21g; Figure 1).

FIGURE 1. Specimen of Brazilian burrowing snake, *Gomesophis brasiliensis*, captured in Vargem Bonita, state of Santa Catarina, Brazil. Photo by Eliara S. Müller.

The place where we found the specimens is a pond with muddy bottom and turbid water, with approximately 80 cm deep, located in an open area near *Pinus* stands. Herbaceous aquatic macrophytes (emergent and floating) are found as inside as in the shore of the pond. The outer edge of the pond is covered by a fen where the most typical vegetal species are mosses (*Sphagnum* sp.). The occurrence of *G. brasiliensis* in swamps with fens was already mentioned by Lema (2002). The habitat where *G. brasiliensis* was registered in Vargem Bonita is probably similar to that where the species lives in Serra Gaúcha (Lema 2002) and Alto Vale do Itajaí (Bérnils *et al.* 2001), since those places correspond to the same vegetal formation.

Most of the known distribution of *G. brasiliensis* is related to the Plata Basin. This is the second largest river basin in South America, and it is highly threatened by hydroelectric impoundments (Wong *et al.* 2007), facing

the second greatest number of planned dams in the world (WWF 2004). In this way, habitat destruction by flooding (among other processes) can actually put this species at risk in such areas. Until date São Paulo and Minas Gerais are the only Brazilian states where the conservation status of *G. brasiliensis* was assessed, both including it in the Least Concern category (Biodiversitas 2007; Bressan *et al.* 2009). This is the most Western record for *G. brasiliensis* in the state of Santa Catarina (Figure 2), and potentially contributes to the species knowledge and protection.

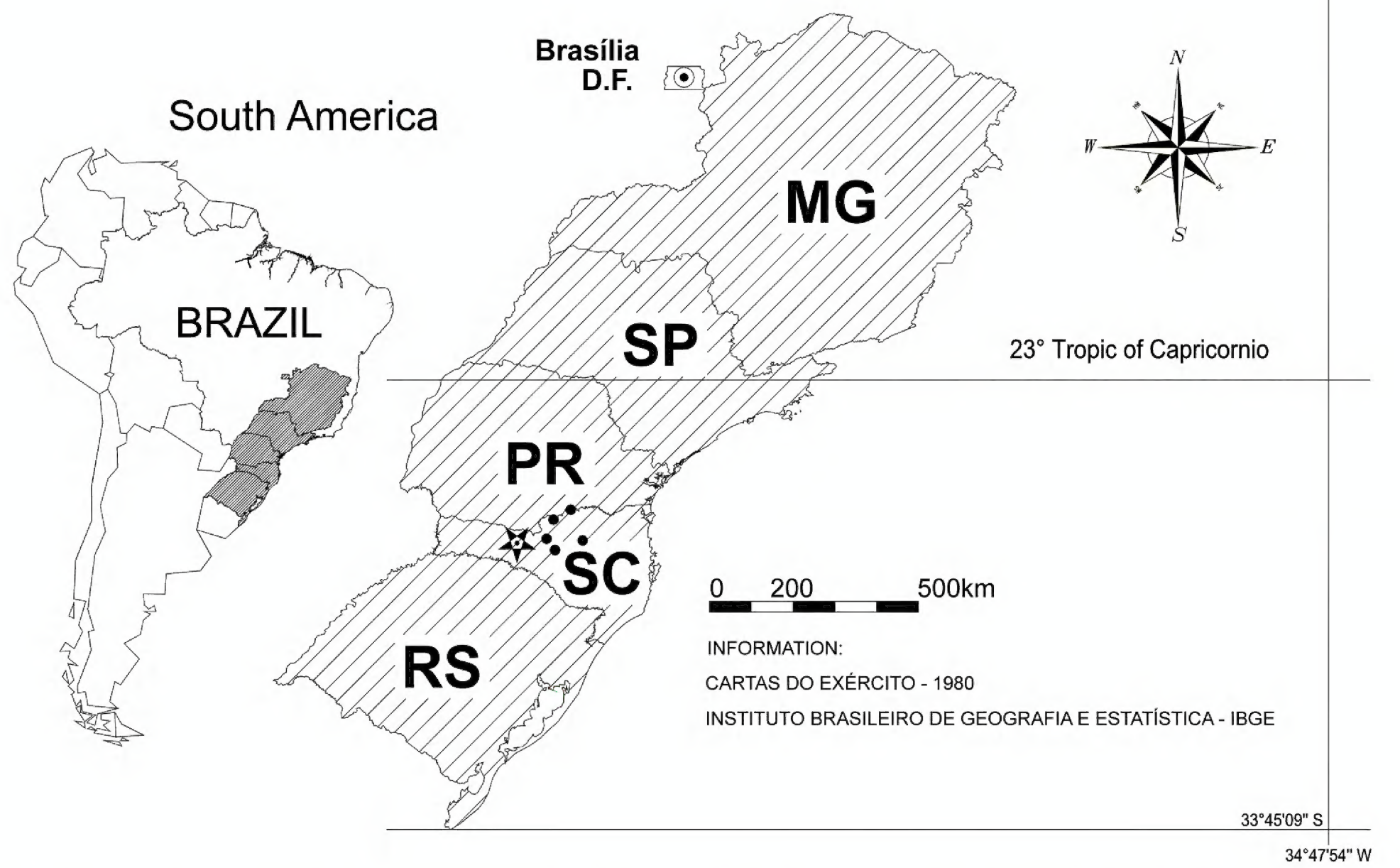

Figure 2. Brazilian states and Federal District, where *Gomesophis brasiliensis* occurs. The localities where the species was previously recorded in Santa Catarina (Caçador, Canoinhas, Fraiburgo, Porto União and Rio do Campo) are indicated by dots and the new locality (Vargem Bonita) by a star. RS: state of Rio Grande do Sul; SC: state of Santa Catarina; PR: state of Paraná; SP: state of São Paulo; MG: state of Minas Gerais.

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